

RADIOACTIVE WASTE PROFILE RECORD EC-0230, Revision 4

A. GENERATOR AND WASTE STREAM INFORMATION

GENERAL: Complete this form for one waste stream. Contact Envirocare at (801) 532-1330 if you have any questions while completing this form. Please indicate "N/A" if a category does not apply.

i. GENERA	TOR INFORMATION			
Generator Name:	US DOE Mound	EPA ID#	OH6890008984	
Generator Contac	t: Gayle Shockey	Title	Waste Coordinator	
Mailing Address:	P.O. Box 3030. I Mound Road.			
	Miamisburg, OH 45343	Utah Site Access Permit #:	·	
Phone:	(937) 673-7861 Fax: (937)	865-4380 Email:	shocgc@doe-md.gov	
Contractor Name:	CH2M Hill Mound	Location of Material (City, State):	Miamsburg, OH	
Name & Title of F	Person Completing Form: Gayle Shockey	Phone:	(937) 673-7861	
2. WASTE S	TREAM INFORMATION			
Waste Stream	D: 8005-02	Waste Stream Name: Mound Soils:		· · ·
Revisio	on: 20 Date: August 25,2005	Volume (ft³): 3,300,000	Delivery Date: August 2005	
CHECK APPRO Waste Profile Re	PRIATE BOXES BELOW. Please verify cord.	the required forms requested below are	completed and submitted with the Radio	active
HAZARDOUS M	IATERIAL: Is the waste classified as hazar	dous waste as defined by 40 CFR 261?		
ү□ и⊠	If Yes, complete and attach the "Hazardo	el Radioactive Waste Analysis Certification us Waste Analysis Certification Attachmen plicable treatment standards per 40 CFR 2 re? Y	t" and check applicable box below.	
LOW-LEVEL R. Level Radioactive	ADIOACTIVE MATERIAL: Is the radioa Waste Policy Amendments Act of 1985 or i	ctivity contained in the waste material Lov n DOE Order 435.1?	v-Level Radicactive Waste as defined in the	Low-
ч⊠ и□	applicable for non-DOE LLRW (i.e., Mix Export Letter).	ed Waste, NORM/NARM, 11e.(2) materia	submitted if applicable. This authorization I, and waste from DOE do not require a Col	ı is mpact
SPECIAL NUCL U-233, Pu-236, Pu	EAR MATERIAL: Does the waste stream -238, Pu-239, Pu-240, Pu-241, Pu-242, Pu-2	contain material with uranium enriched in		s:
YM N	If Yes, complete and attach the "SNM Ex documentation must be included with the	emption Certification" form (EC-0230-SNI submittal.	M). Supporting statements, analytical resul	ts, and
PCB MATERIAL	L: Does the waste contain Polychlorinated B	iphenyls (PCB's) that are regulated for dis	posal per 40 CFR 761?	
Y 🗆 N 🖾	If Yes, complete and attach the "PCB Wa	ste Certification" form (EC-98279).		
ASBESTOS: Doc	es the waste contain Asbestos Containing Ma	iterial?		
У□ и⊠	If Yes, Asbestos Containing Material mus containing asbestos in Section B.5 of the	t be managed in accordance with 40 CFR 6	il. Provide a detailed description of the wa	ste



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B. WASTE PHYSICAL PROPERTIES & PACKAGE INFORMATION

ı.	GENERAL CHARACTERISTICS	
	Does the waste contain free liquids? Y . N . If Yes, what is the percent of free liquid by waste volume? <1 %	
	Does the waste contain absorbent? Y 🗵 N 🗀 Density range of the waste: 65-120 S.G. 🗀 lb/ft3 🔀	
	List percentage of waste type by volume: Soil 83% Concrete & Metal 15% DAW 2% Resins 0% Sludge 0%	
	Other constituents and percentage by volume? Primarily debris from building demolition	
2.	MATERIAL SIZE	
	Gradation of Material: Indicate the percentage of waste material that would pass through the following grid sizes. For example, 95% of the ma would pass through a 12" square, 90% passes through a 4" square, 80% passes through a 1" square, etc.	terial
	12" 100 % 4" 90 % 1" 83 % 1/4" 83 % 1/40" 70 % 1/200" 50 %	
	Does the waste stream contain oversize debris (i.e., no dimension < 10 inches and any dimension > 12 feet)? Y \(\subseteq \) \(\subseteq \) \(\subseteq \) If Yes, include a detailed description (i.e., weight, size, drawings, etc.) of the oversize debris in the narrative of Section B.5.	
3.	MOISTURE CONTENT	
	For soil or soil-like materials, please use Std. Proctor Method ASTM D-698 to determine the optimum moisture content. The waste material r not exceed 3 percentage points above optimum moisture upon arrival at Envirocare's disposal facility unless approved by Envirocare.	л ust :
	Optimum Moisture Content: 13.4 % at Maximum Dry Density (lb/ft³): 117	
	Average Moisture Content: 15.7% Moisture Content Range: 11.8% - 20.9%	
4.	WASTE SHIPPING & PACKAGING	
	Transportation Mode: A Highway Rail	
	Shipping & Container Packages: ☑ Drums (≤ 85 gallons) ☑ Boxes (≤ 100 ft³) ☐ Soft-Sided Bags (≤ 10 yd³) (Check all that apply)	
	✓ Intermodal ✓ Sealand ✓ Gondola* ☐ Box Car	
	Other: in load wrapper with gondola lid if appropriate	
-	*Dimensions of gondula railcars must be between 48 to 56.5 feet in length and 8.5 to 12.5 feet in height as measured from the top of the rail to top of the railcar unless approved by Envirocare.	the .
5.	NARRATIVE DESCRIPTION AND HISTORY OF WASTE	
	Please submit a narrative description and history of the waste as an attachment to the Radioactive Waste Profile Record. This attachment should include the following:	
	 Process that generated the waste Waste material physical composition and characteristics Radiological and chemical characterization method Basis for determining manifested radionuclide concentrations Description and amounts of absorbents, if applicable Basis of non-hazardous or hazardous waste determinations Treatment processes, if applicable Product information or Material Safety Data Sheets associated with the waste as applicable 	•



CH2M HILL

RADIOACTIVE WASTE PROFILE RECORD

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C. RADIOLOGICAL INFORMATION

Obtain sufficient samples to adequately determine a range and weighted average of activity in the waste. Attach the gamma spectroscopy or radiochemistry data supporting the radionuclide information listed below.

- Does the waste material contain accessible surfaces with contact dose rates greater than 500 mR/hr? Y N
- Does the waste material contain any of the following isotopes: Aluminum-26, Berkelium-247, Calcium-41. Californium-249, Californium-250, Chlorine-36, Rhenium-187, Terbium-157, or Terbium-158? Y N
- 3. Please list the following information for each isotope associated with the waste. The manifested concentration on the Uniform LLRW Manifest Form 541 must not exceed the upper concentration range listed below for each isotope. Provide an explanation in the narrative description of Section B.5 if the waste contains localized "hot spots" or elevated concentrations that significantly exceed the upper concentration range. Envirocare's license assumes that short-lived decay products of specified isotopes are present in concentrations equal to the parent. Consequently, these short-lived isotopes do not need to be listed below. If additional space is needed, provide an Attachment C.3 to this profile record formatted as below.

	Isotopes		Manif entrat (pC)	ion Range	Weighted Avg. per Container (pCi/g)		Isotopes	Conce	lanife ntratio (pCi/	on Ra	mge	per	ghted Avg. Container (pCi/g)
	Ac-227	nd	_ to	15,000	50.0			:	to				
	Am-241	nd	_ to	100	2.0	14			to to				
	H-3	nd	_ to	100,000	50.0	_			to			***************************************	
	Co-60	nd	_ to	1,000	5.0	_		1	to				7.5
	Cs-137	nd	_ to	5,000	2.0				to				· · · · · · · · · · · · · · · · · · ·
	Sr-90	nd	_ to	100	1.0	_			to	:	- 1		
	Ra-226	nd	_ to	8000	15	·			to	,	-		
	Pu-238	nd	_ to	9,100	400.0	3200			to	•	 :	1 1	
	Pu-239	nd	to	500	20.0	250			`to		:	;	
	Pu-240	nd	to	500	15.0	20 T			to	• • • • • • • • • • • • • • • • • • • •			
	Pu-241	nd	_ to	500	5.0	15.3	-		to	:		: .	
	Th-228	nđ	to	1,000	50.0	_		-	to				
	Th-230	nd	_ to	7000	10.0	[to)	ţ	
	Th-232	nd	to	1,000	50.0			:	to -	:		1	
	U-234	nd	_ to .	500	4.0	_		-	to	:		• :	
	U-235	nd	_ to	100	0.5	_			to T			:	
	U-238	nd	_ to _	500	5.0				_ to			1	
	U-233	nd	_ to _	300	1.0			-: ,	to _	:			
	Th-229	nd	to	200	1.0	_			to -				
	Pb-210	nd	to	7000	15				to -				
•	Bi-207	πd	_ to _	400	2.0				to		 -		
	Bi-210	nd	_ to _	400	2.0	_			to		- 1		
	Pa-231	nd	_ to _	100	1.0			. 	_ to				
	Bi-210m	nd	to	400	5.0				to				
	Ag-108m	nd	_ to _	400	5.0				to -				
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			to						to				
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HAZARDOUS WASTE ANALYSIS CERTIFICATION ATTACHMENT

This form is required only if the checkbox for Hazardous Material on page one has been checked YES. Envirocare may waive the chemical laboratory analyses if the material is not amenable to chemical sampling and analysis (e.g., debris items including metal pieces, concrete, plastic, etc.). Justification for waiving the chemical analyses must be provided in Section B.5.

D. MINIMUM REQUIRED CHEMICAL ANALYSIS

GENERAL CHEMICAL PARAMETERS

The following parameters must be analyzed by a Utah or NELAC certified laboratory. Typical SW-846 analytical methods have been listed. Other approved methods are acceptable. Attach the most recent or applicable chemical analytical results representing the waste.

		SW-846 Analytical N	Aethods	-	•		
Soil pH:		Method 9045 Please pr	rovide the range o	of the pH analy	ses perform	ned.	
PFLT:	Pass / Fail	Method 9095 Not appli	icable for liquid n	adioactive wa	ste streams.		
Reactive Sulfide:	mg/kg	Method 9034		•			
Reactive Cyanide:	mg/kg	Method 9014 If the Rea	active Cyanide is	> 50 mg/kg ,	total and am	nenable cyanide are i	required.
ij.		Method 9010	Total cyanide:	mg/k	g Ame	mable cyanide:	mg/kg
TOX:	mg/kg	Method 9020 TOX or I & 8270 analyses (totals)	Method 8260 & 8 are required.	270 analyses (totals). If T	OX >200 mg/kg, M	ethod 8260
Has the	waste been analyzed	for volatile or semi-volatile	e constituents (M	ethod 8260 or	8270)7 Y	□ и □	
2. HAZARDOUS WAS	STE CODES ANI	odor? Y N N If Ye	NDARDS (40 C	CFR 2 68)			
and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu	tment standards. Include lumn. Worst-case conce is needed, provide an A nations and any variance escription, uent of Concern,	entrations only national only in Attachment D.2 es, exclusions, e Tr	need to be profilete. In the nar eatment Stange kg unless n mg/L TCLP	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, sested in Section I Worst-Case Concentration	ed Include a 3.5.
and indicate "Former" treatment standards. description of hazarde	" in the second col If additional space ous waste determin Do Constitu	lumm. Worst-case conce is needed, provide an A nations and any variance escription,	entrations only national only in Attachment D.2 es, exclusions, e Tr	need to be protect to this profil to. in the nar eatment Sta	ovided for e record fo rative requ indard oted as or	concentration bas armatted as below tested in Section I Worst-Case	ed Include a 3.5. n
and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu or S	lumm. Worst-case conce b is needed, provide an A nations and any variance escription, uent of Concern, Subcategory	entrations only reactions only reactions only reactions on the contraction of the contrac	need to be profilete. In the nar eatment Stange kg unless n mg/L TCLP	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, rested in Section I Worst-Case Concentration (mg/kg unless not	ed Include a 3.5. n
and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu or S	lumm. Worst-case conce is needed, provide an A nations and any variance escription, uent of Concern, Subcategory	entrations only reactions only reactions only reactions on the contraction of the contrac	need to be profilete. In the nar eatment Stange kg unless n mg/L TCLP	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, rested in Section I Worst-Case Concentration (mg/kg unless not	ed Include a 3.5. n
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and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu or S	lumm. Worst-case conce is needed, provide an A nations and any variance escription, uent of Concern, Subcategory	entrations only reactions only reactions only reactions on the contraction of the contrac	need to be profilete. In the nar eatment Stange kg unless n mg/L TCLP	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, rested in Section I Worst-Case Concentration (mg/kg unless not	ed Include a 3.5. n
and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu or S	lumm. Worst-case conce is needed, provide an A nations and any variance escription, uent of Concern, Subcategory	entrations only reactions only reactions only reactions on the contraction of the contrac	need to be profilete. In the nar eatment Stange kg unless n mg/L TCLP	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, rested in Section I Worst-Case Concentration (mg/kg unless not	ed Include a 3.5. n
and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu or S	lumm. Worst-case conce is needed, provide an A nations and any variance escription, uent of Concern, Subcategory	entrations only reactions only reactions only reactions on the contraction of the contrac	need to be profilete. In the nar eatment Stange kg unless n mg/L TCLP	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, rested in Section I Worst-Case Concentration (mg/kg unless not	ed Include a 3.5. n
and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu or S	lumm. Worst-case conce be is needed, provide an A nations and any variance escription, uent of Concern, Subcategory	entrations only reactions only reactions only reactions on the contraction of the contrac	need to be protect to this profilete. In the nare reatment Standy L. TCLP Technology C.	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, rested in Section I Worst-Case Concentration (mg/kg unless not	ed Include a 3.5. n
and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu or S	lumm. Worst-case conce b is needed, provide an A nations and any variance escription, uent of Concern, Subcategory	entrations only reactions only reactions only reactions only reactions. Attachment D.2 is, exclusions, early (n	need to be protect to this profilete. In the nare eatment Stang/kg unless need to may L TCLP Technology C	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, rested in Section I Worst-Case Concentration (mg/kg unless not	ed Include a 3.5. n
and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu or S	lumm. Worst-case conce be is needed, provide an A nations and any variance escription, uent of Concern, Subcategory	entrations only reactions only reactions only reactions only reactions. Attachment D.2 is, exclusions, early (n	need to be protect to this profilete. In the nare eatment Stang/kg unless need to may L TCLP Technology C	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, rested in Section I Worst-Case Concentration (mg/kg unless not	ed Include a 3.5. n
and indicate "Former treatment standards description of hazarde	" in the second col If additional space ous waste determin Do Constitu or S	lumm. Worst-case conce b is needed, provide an A nations and any variance escription, uent of Concern, Subcategory	entrations only reactions only reactions only reactions only reactions. Attachment D.2 is, exclusions, early (n	need to be protect to this profilete. In the nare eatment Stang/kg unless need to may L TCLP Technology C	ovided for e record fo rative requ indard oted as or	concentration bas ormatted as below, rested in Section I Worst-Case Concentration (mg/kg unless not	ed Include a 3.5. n



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D.	2.	HAZARDOUS WASTE CODES AND TREATMENT STANDARDS (Continued)
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EPA HW Codes	Constitue	eription, ent of Concern, ebcategory	(mg/	tment kg unle ng/L To chnolog	ss not CLP o	ed as r	(n	Concen	t-Case stration cless noted .TCLP)
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<u> </u>									
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							<u> : </u>		-
				:			: .	:	
UNDERYLYING H	AZARDOUS CONS	TITUENTS (40 CFR 268.4	8)					2.5	
		(UHCs) and treatment stands need to be provided for con- is profile record formatted as		le UH(ased tr	s tha eatm	t have ent sta	been i indards	emove If add	d through ditional s
Underly Hazarde	ous	Treatment Standard (mg/kg unless noted as mg/L TCLP or	Cor	orst-C ncentr g unles	ation				



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D. 4. OTHER CHEMICAL CONSTITUENTS

List any other chemical constituents of concern (e.g., PCBs, chelating agents, etc.) and worst-case concentrations. If additional space is needed, provide an Attachment D.4 to this profile record formatted as below.

	her mical ituents	Worst Case Concentration (mg/kg unless noted as mg/L TCLP)	Other Hazardous Constituents	Worst-Case Concentration (mg/kg unless noted as mg/L TCLP)
			<u> </u>	
				
				· · · · · · · · · · · · · · · · · · ·
· · · · · · · · · · · · · · · · · · ·				
LABORATORY (LERTIFICATIO	N INFORMATION		· .
official certifica analyzed and ea	ations are given. I ach method used f	oratory holds a current certification for Please provide a copy of the laboratory or chemical analyses required by this for TIFICATION (Describe below)	's current certification letter	
	,			
		•		
CERTIFICATION	V	•	· ·	



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LOW-LEVEL RADIOACTIVE WASTE CERTIFICATION ATTACHMENT

This form is required only if the checkbox for Hazardous Material on page one has been checked No. Envirocare may waive the chemical laboratory analyses if the material is not amenable to chemical sampling and analysis (e.g., debris items including metal pieces, concrete, plastic, etc.) Justification for waiving the chemical analyses must be provided in Section B.5.

D. MINIMUM REQUIRED CHEMICAL ANALYSIS

The following parameters must be analyzed by a Utah or NBLAC certified laboratory. Typical SW-846 analytical methods have been listed. Other approved methods are acceptable. Attach the most recent or applicable chemical analytical results representing the waste.

			SW-846 Analytical Methods	•		
	Soil pH: 2.5-11.1		Method 9045 Please provide the range of	the pH analyses performed.		
	PFLT: pass	Pass / Fail	Method 9095 Not applicable for liquid ra	dioactive waste streams.		•
R	eactive Sulfide: 11.0	mg/kg	Method 9034	•		•
	active Cyanide: 0.5	mg/kg	Method 9014			٠
2.	40 CFR 261.24 Table 1 -	- Contaminar	its of Toxicity Characteristic		:.	
	Metals plus Zinc: Metho	ods 6010 & *7	470 (Envirocare's GWQDP requires zin	ic analysis) 🛛 TCLP (mg/L)	or 🔲 Total (1	mg/kg)
	Arsenic	see Rev 0	Chromium see Rev 0	Selenium	see Rev 0	
	Barium_	see Rev 0	Lead see Rev 0	Silver	see Rev 0	
	Cadmium_	see Rev 0	*Mercury see Rev 0	Zinc	see Rev 0	
•	Organics, Pesticides/Her	bicides: Met	hods 8081/8151 🔲 TCLP (mg/L) or 🗌	Total (mg/kg)	•	
	Endrin_	see Rev 0	Toxaphene see Rev 0	Chlordane	see Rev 0	
	Lindane	see Rev 0	*2,4-D see Rev 0	Heptachlor_	see Rev 0	
	Methoxychlor_	see Rev 0	*2,4,5-TP Silvex see Rev 0			
•	Organics, Semi-Volatile:	Method 8270	TCLP (mg/L) or Total (mg/kg))	: · .	
	o-Cresol_	see Rev 0	Hexachlorobenzene see Rev 0	Pentrachlorophenol	see Rev 0	
	m-Cresol_	see Rev 0	Hexachlorobutadiene see Rev 0	Pyridine_	see Rev 0	
	p-Cresol_	see Rev 0	Hexachloroethane see Rev 0	2,4,5-Trichlorophenol	see Rev 0	
	Total Cresol_	see Rev 0	Nitrobenzene see Rev 0		see Rev 0	
	2,4-Dinitrotoluene_	see Rev 0				
(Organics, Volatile: Meth	od 8260 🔲 1	TCLP (mg/L) or 🔲 Total (mg/kg)			
	Benzene_	see Rev 0	1,4-Dichlorobenzene see Rev 0	Methyl ethyl keytone_	see Rev 0	
	Carbon Tetrachloride_	see Rev 0	1,2-Dichloroethane see Rev 0	Tetrachloroethylene	see Rev 0	
	Chlorobenzene_		1,1-Dichloroethylene see Rev 0	_ Trichloroethylene_	see Rev 0	
	Chloroform_	see Rev 0		· · · · · · · · · · · · · · · · · · ·	: *	
3. 1	Was the waste at the point	of generation	a RCRA hazardous waste per 40 CFR 2	261? Y 🔲 N 🔯	: · ·	

If No, indicate "N/A" in Section D.3 below.



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reatment Standard img/kg unless noted as mg/L/TCLP or Technology Code)	Worst Case Concentration (mg/kg unless noted as mg/L TCLP)
na	na
na	na na
na	<u>na</u>
na	na
na ·	nu
na	na
	rng/kg unless noted as mg/L TCLP or Technology Code) na na na na

4. OTHER CHEMICAL CONSTITUENTS

List any other chemical constituents of concern (e.g., PCBs, chelating agents, etc.) and worst-case concentrations. If additional space is needed, provide an Attachment D.4 to this profile record formatted as below.

Other Chemical Constituents	Worst-Case Concentration (mg/kg unless noted as mg/L TCLP)	Other Hazardous Constituents	Worst-Case Concentration (mg/kg unless noted as mg/L TCLP)
na	na	na	na
na ·	na	na	ла
na na	na	na .	. па
na	na	na	па
na	na	na	па
na	na	na	па

5. LABORATORY CERTIFICATION

☑ UTAH or NELAC CERTIFIED

The Utah or NELAC certified laboratory holds a current certification for the applicable chemical test methods insofar as such official certifications are given. Please provide a copy of the laboratory's current certification letter for each parameter analyzed and each method used for chemical analyses required by this form.

many and mile out included used for entertaken distributed by this forth.			•		
OTHER LABORATORY CERTIFICATION (Describe below)		:	-	÷	
na					

6. CERTIFICATION

I certify that sample results representative of the waste described in this profile were or shall be obtained using state- and EPA-approved analytical methods. I also certify that where necessary representative samples were or shall be provided to Envirocare and to qualified laboratories for the analytical results reported herein. I further certify that the waste described in this record is not prohibited from land disposal in 40 CFR 268 (unless prior arrangements are made for treatment at Envirocare) and that all applicable treatment standards are clearly indicated on this form. I also certify that the information provided on this form is complete, true, and correct and is accurately supported and documented by any laboratory testing as required by Envirocare. I certify that the results of any said testing have been submitted to Envirocare. I certify that the waste does not contain any prohibited items listed in Envirocare's Radioactive Material License.

Handa	Al achar		
Generalor's Signature: Bayle !.	success	Title: Waste Coordinator	Date: August 25, 2005
0	//		

B.5 Narrative

Summary

Mound has over 3,000,000 cubic feet (>1,300 gondolas) of soil and debris as a part of the completion of waste management actions at the Mound closure. The soils and debris result from various remediation actions throughout the facility. The general nature of the waste is soil with up to 17% Envirocare conforming debris. The waste is generally loaded into open top low-sided gondola cars with load wrappers. Occasionally, cars may be lidded as appropriate. The 17% debris is not necessarily distributed throughout each car. Some cars may have none while others could be up to 100% debris. The 17% is for the profile overall and will be determined and controlled by operations personnel at the consolidation facility and monitored by Envirocare.

The project is organized into discrete activities with project teams generating the wastes and transferring (both physically and for responsibility) to a centralized waste management group. For risk management, cost control, and efficiency the centralized waste management group operates intermediate staging facilities for waste to perform consolidation, packaging, verification, and shipping activities for disposal. The largest of these facilities is the soil staging area.

The Mound Waste Management Plan is used as a waste management "acceptance" program for waste transfer from the generator to the consolidation area. Criteria for radiological, chemical, and physical characteristics are contained in the procedure. This revision of the 8005-02 Envirocare profile depicts some of the important changes in waste preparation and review methods and controls. Each project is governed by Work Packages which contain determinations for waste handling and disposition.

About 1,000,000 cubic feet of soil and debris material has been stockpiled for packaging and transport. This profile describes the nature of this waste stockpile. Waste is received daily as it is generated by the various projects. Several projects dominate the volume contribution to the waste inventory. These projects may generate material of differing compositions. It is impractical to blend all of the material into one physically uniform waste stream given the availability of real estate and the production schedules. Therefore, the waste shipped under this profile will change in physical form from time to time depending on logistical and schedule issues. These changes will be managed, controlled and communicated with Envirocare to assure appropriate waste handling.

Additionally, it is impractical to always manage the moisture content of this waste stream to maintain a level < 3% above optimum moisture of the soil. Some waste is expected to be "wet" waste upon receipt by Envirocare.

Process

Generators are required to characterize the waste for management by the centralized waste management group. Approaches are developed together by the generators and waste management to assure appropriate regulation, compliance and management. These are necessarily driven at the project level and determined by the material and the actions at the remediation/decommissioning site.

Radiological and Hazardous Classification: The waste segregation at the generation point provides broad segregation for Radiological and Hazardous classifications. All of the waste in this waste stream

is classified as non-RCRA Hazardous and conforms to the defined ranges of radionuclide distribution contained in this profile.

Waste Operations are designed for cost control, efficiencies and compliance verification in packaging and disposal. They are not designed for waste processing or treatment. Minimal physical character alterations are conducted in the waste operations areas.

Control and Communications:

Given the likelihood of variations in moisture content and optimum moisture content of the waste over the duration of the project Mound will perform the following.

- 1. Moisture content of each railcar will be determined and recorded.
- 2. Optimum moisture content will be routinely determined by Proctor Testing to monitor variations in soil characteristics.
- 3. This information will be summarized and will be transmitted to Envirocare.

Physical classification

Both soil and debris are managed under this profile.

Debris

The debris will conform to the "debris" definition for Envirocare Waste Acceptance. Oversized debris is excluded from this waste stream. The generators are advised to perform any sizing operations required. The size limitations are evaluated upon receipt at the waste facilities. Some material is contained in the stockpile which does not meet the criteria; however this is segregated and sized prior to packaging.

Generally, debris is segregated during the loading phase of the operations. The debris is visually inspected by the staging and loading operators and worked into the gondolas to optimize packaging efficiencies. As stated earlier this is controlled at the time of loading, cars will have differing percentages of debris but will average less than 17% over the entire profile. If required, cars may be loaded with mostly debris and soil added to increase weight. Typically, these cars will have lids.

Soil

The physical properties of this profile are premised on the stockpiled blend of material and are applicable to the general waste as received from the various projects, blended, and worked by the stockpile loading operations. The properties are described in the profile. The sampling and analysis of the waste to determine optimum moisture content is described in the next section. Mound personnel are monitoring the moisture content of the waste on a car by car level.

Specific projects may have differing physical properties. Depending on the magnitude of the differences, generation and receipt rates, and the blending abilities at the loading area, these project wastes may be blended with the stockpile or managed separately. Waste management personnel will base these decisions on analytical data from the projects and other factors affecting waste operations.

Modifications to Radionuclide Concentrations

Several radionuclides have been removed from Section C of Profile 8005-02, Rev. 15, due to their extremely low concentrations in relation to the major isotopes reported. The upper concentration value for several other isotopes has been raised to more accurately reflect the radiological characteristics of the wastes coming from a specific project at Mound, the R/SW building debris and soils. The only weighted average per container value that has been changed is that for tritium, which has been raised to account for the inclusion of the R/SW waste streams in the overall profile volume.

PRS 11 Soils

Data from VOA and SVOA, TCLP, shows no "hits" above characteristic regulatory levels. The matrix is soils.

Data from VOA and SVOA totals shows elevated amounts of TCE at 260 ppm (trichloroethene) and toluene at 320 ppm.

To date, no process knowledge that specifically details the history of this contamination has been found. No information regarding the source of these two contaminates has been located or determined to otherwise be available. There are general statements in various "clean up" and investigation documents that pertain to the site as a whole that TCE was used at the site as a solvent, but no documentation specifically states that any spent solvents of TCE or toluene were disposed of at PRS 11.

As a result, no waste codes appear applicable to this material as it is exhumed.